

SEQUENCE LISTING

<110> WEISMAN, LOIS

<120> INTRACELLULAR SIGNALING PATHWAYS IN DIABETIC SUBJECTS

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<141> 2004-03-02

<150> 60/452,782

<151> 2003-03-07

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<170> PatentIn Ver. 2.1

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<211> 2099

<212> PRT

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 <212> PRT
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Glu Thr Lys Tyr Arg Val Leu Lys Ile Asp Arg Thr Glu Pro Lys Asp
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Leu Val Ile Ile Asp Asp Arg His Val Tyr Thr Gln Gln Glu Val Arg
      50              55              60

Glu Leu Leu Gly Arg Leu Asp Leu Gly Asn Arg Thr Lys Met Gly Gln
      65              70              75              80

Lys Gly Ser Ser Gly Leu Phe Arg Ala Val Ser Ala Phe Gly Val Val
      85              90              95

Gly Phe Val Arg Phe Leu Glu Gly Tyr Tyr Ile Val Leu Ile Thr Lys
      100             105             110

Arg Arg Lys Met Ala Asp Ile Gly Gly His Ala Ile Tyr Lys Val Glu
      115             120             125

Asp Thr Asn Met Ile Tyr Ile Pro Asn Asp Ser Val Arg Val Thr His
      130             135             140

Pro Asp Glu Ala Arg Tyr Leu Arg Ile Phe Gln Asn Val Asp Leu Ser
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 Leu Ile Thr Gln Gly Gly Ser Gly Val Phe Gly Ile Cys Ser Glu Pro
 210 215 220
 Tyr Met Lys Tyr Val Trp Asn Gly Glu Leu Leu Asp Ile Ile Lys Ser
 225 230 235 240
 Thr Val His Arg Asp Trp Leu Leu Tyr Ile Ile His Gly Phe Cys Gly
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 Gln Ser Lys Leu Leu Ile Tyr Gly Arg Pro Val Tyr Val Thr Leu Ile
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 Leu Cys Asp Ala Ser Val Met Ser Phe Thr Ala Gly Ser Tyr Ser Ser
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 Tyr Val Gln Val Arg Gly Ser Val Pro Leu Tyr Trp Ser Gln Asp Ile
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 Ser Thr Met Met Pro Lys Pro Pro Ile Thr Leu Asp Gln Ala Asp Pro
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 Gly Ser Pro Ile Ile Ile Leu Asn Leu Val Lys Glu Arg Glu Lys Arg
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 Lys His Glu Arg Ile Leu Ser Glu Glu Leu Val Ala Ala Val Thr Tyr
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 Asn Arg Pro Asp Ser Tyr Cys Ser Ile Leu Arg Pro Asp Glu Lys Trp
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Ile	Leu	Arg	Thr	Asn	Cys	Val	Asp	Cys	Leu	Asp	Arg	Thr	Asn	Thr	Ala	485	490	495	
Gln	Phe	Met	Val	Gly	Lys	Cys	Ala	Leu	Ala	Tyr	Gln	Leu	Tyr	Ser	Leu	500	505	510	
Gly	Leu	Ile	Asp	Lys	Pro	Asn	Leu	Gln	Phe	Asp	Thr	Asp	Ala	Val	Arg	515	520	525	
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Tyr	Tyr	Ser	Asn	Ala	Phe	Ser	Asp	Ala	Asp	Arg	Gln	Asp	Ser	Ile	Asn	580	585	590	
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Thr	Phe	Cys	Leu	Ala	Met	Thr	Ser	Ser	Ala	Arg	Asp	Phe	Met	Pro	Lys	690	695	700	
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Thr	Gly	Lys	Ser	Val	Leu	Gly	Asn	Lys	Ser	Asn	Arg	Glu	Glu	Ala	Val	725	730	735	
Leu	Gln	Arg	Lys	Thr	Ala	Ala	Ser	Ala	Pro	Pro	Pro	Pro	Ser	Glu	Glu	740	745	750	
Ala	Val	Ser	Ser	Ser	Ser	Glu	Asp	Asp	Ser	Gly	Thr	Asp	Arg	Glu	Glu	755	760	765	

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 Ile Tyr Ser Arg Phe Val Gln Leu Gly Gln Ser Gln His Lys Gln Asp
 820 825 830
 Lys Asn Ser Gln Gln Pro Cys Ser Arg Cys Ser Asp Gly Val Ile Lys
 835 840 845
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 850 855 860
 Pro Pro Arg Val Asp Arg Lys Ser Thr Glu Ile Phe Gln Ala His Ile
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Ile Glu Lys Leu Val Arg Glu Phe Val Ala Gln Asn Asn Thr Val Gln
      35              40              45

Ile Lys His Val Ile Gln Thr Leu Ser Gln Glu Phe Ala Leu Ser Gln
      50              55              60

His Pro His Ser Arg Lys Gly Gly Leu Ile Gly Leu Ala Ala Cys Ser
      65              70              75              80

Ile Ala Leu Gly Lys Asp Ser Gly Leu Tyr Leu Lys Glu Leu Ile Glu
      85              90              95

Pro Ala Leu Thr Cys Phe Asn Asp Ala Asp Ser Arg Leu Arg Tyr Tyr
      100             105             110

Ala Cys Glu Ala Leu Tyr Asn Ile Val Lys Val Ala Arg Gly Ala Val
      115             120             125

Leu Pro His Phe Asn Val Leu Phe Asp Gly Leu Ser Lys Leu Ala Ala
      130             135             140

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Ile	Pro	Leu	Leu	Arg	Glu	Arg	Ile	Tyr	Ser	Asn	Asn	Gln	Tyr	Ala	Arg	180	185	190	
Gln	Phe	Ile	Ile	Ser	Trp	Ile	Leu	Val	Leu	Glu	Ser	Val	Pro	Asp	Ile	195	200	205	
Asn	Leu	Leu	Asp	Tyr	Leu	Pro	Glu	Ile	Leu	Asp	Gly	Leu	Phe	Gln	Ile	210	215	220	
Leu	Gly	Asp	Asn	Gly	Lys	Glu	Ile	Arg	Lys	Met	Cys	Glu	Val	Val	Leu	225	230	235	240
Gly	Glu	Phe	Leu	Lys	Glu	Ile	Lys	Lys	Asn	Pro	Ser	Ser	Val	Lys	Phe	245	250	255	
Ala	Glu	Met	Ala	Asn	Ile	Leu	Val	Ile	His	Cys	Gln	Thr	Thr	Asp	Asp	260	265	270	
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Leu	Pro	Cys	Leu	Ala	Tyr	Asp	Asp	Arg	Lys	Lys	Ser	Ile	Lys	Glu	Val	305	310	315	320
Ala	Asn	Val	Cys	Asn	Gln	Ser	Leu	Met	Lys	Leu	Val	Thr	Pro	Glu	Asp	325	330	335	
Asp	Glu	Leu	Asp	Glu	Leu	Arg	Pro	Gly	Gln	Arg	Gln	Ala	Glu	Pro	Thr	340	345	350	
Pro	Asp	Asp	Ala	Leu	Pro	Lys	Gln	Glu	Gly	Thr	Ala	Ser	Gly	Gly	Pro	355	360	365	
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Ala	Ala	Ser	Thr	Glu	Arg	Ala	Pro	Val	Thr	Leu	His	Leu	Asp	Gly	Ile	385	390	395	400
Val	Gln	Val	Leu	Asn	Cys	His	Leu	Ser	Asp	Thr	Ala	Ile	Gly	Met	Met	405	410	415	
Thr	Arg	Ile	Ala	Val	Leu	Lys	Trp	Leu	Tyr	His	Leu	Tyr	Ile	Lys	Thr	420	425	430	
Pro	Arg	Lys	Met	Phe	Arg	His	Thr	Asp	Ser	Leu	Phe	Pro	Ile	Leu	Leu	435	440	445	

Gln Thr Leu Ser Asp Glu Ser Asp Glu Val Ile Leu Lys Asp Leu Glu	450	455	460
Val Leu Ala Glu Ile Ala Ser Ser Pro Ala Gly Gln Thr Asp Asp Pro	465	470	475 480
Gly Pro Leu Asp Gly Pro Asp Leu Gln Ala Ser His Ser Glu Leu Gln	485	490	495
Val Pro Thr Pro Gly Arg Ala Gly Leu Leu Asn Thr Ser Gly Thr Lys	500	505	510
Gly Leu Glu Cys Ser Pro Ser Thr Pro Thr Met Asn Ser Tyr Phe Tyr	515	520	525
Lys Phe Met Ile Asn Leu Leu Lys Arg Phe Ser Ser Glu Arg Lys Leu	530	535	540
Leu Glu Val Arg Gly Pro Phe Ile Ile Arg Gln Leu Cys Leu Leu Leu	545	550	555 560
Asn Ala Glu Asn Ile Phe His Ser Met Ala Asp Ile Leu Leu Arg Glu	565	570	575
Glu Asp Leu Lys Phe Ala Ser Thr Met Val His Ala Leu Asn Thr Ile	580	585	590
Leu Leu Thr Ser Thr Glu Leu Phe Gln Leu Arg Asn Gln Leu Lys Asp	595	600	605
Leu Lys Thr Leu Glu Ser Gln Asn Leu Phe Cys Cys Leu Tyr Arg Ser	610	615	620
Trp Cys His Asn Pro Val Thr Thr Val Ser Leu Cys Phe Leu Thr Gln	625	630	635 640
Asn Tyr Arg His Ala Tyr Asp Leu Ile Gln Lys Phe Gly Asp Leu Glu	645	650	655
Val Thr Val Asp Phe Leu Ala Glu Val Asp Lys Leu Val Gln Leu Ile	660	665	670
Glu Cys Pro Ile Phe Thr Tyr Val Arg Leu Gln Leu Leu Asp Val Lys	675	680	685
Asn Asn Pro Tyr Leu Ile Lys Ala Leu Tyr Gly Leu Leu Met Leu Leu	690	695	700
Pro Gln Ser Ser Ala Phe Gln Leu Leu Ser His Arg Leu Gln Cys Val	705	710	715 720
Pro Asn Pro Glu Leu Leu Gln Thr Glu Asp Ser Leu Lys Ala Ala Pro	725	730	735
Lys Ser Gln Lys Ala Asp Ser Pro Ser Ile Asp Tyr Ala Glu Leu Leu	740	745	750

Gln His Phe Glu Lys Val Gln Asn Lys His Leu Glu Val Arg His Gln
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Arg Ser Gly Arg Gly Asp His Leu Asp Arg Arg Val Val Leu
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<211> 880
 <212> PRT
 <213> Vac14 Yeast

<400> 7

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Phe	Leu	Val	Asp	Trp	Leu	Lys	Val	Leu	Leu	Asn	Thr	Pro	Gly	Leu	Glu
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Leu	Ile	Ser	Tyr	Leu	Pro	Ser	Phe	Leu	Gly	Gly	Leu	Phe	Thr	Phe	Leu
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Ser	Met	Glu	Thr	Asp	Asp	Thr	Lys	Leu	Ser	Asn	Thr	Asn	Glu	Thr	Asp
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Asp	Gly	Met	Phe	Phe	Asn	Ser	Leu	Phe	Lys	Ser	Trp	Cys	Pro	Asn	Pro
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Glu	Asp	Glu	Tyr	Ser	Ser	Asp	Met	Ile	Arg	Leu	Asp	His	Gly	Ala	Asn
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Lys	Gln	Glu	Ile	Val	Thr	Pro	Ile	Ser	Pro	Met	Asn	Glu	Ala	Ile	Asn
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Glu	Glu	Met	Glu	Ser	Pro	Asn	Asp	Asn	Ser	Ser	Val	Ile	Leu	Lys	Asp
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 <212> PRT
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Gly	Glu	Gln	Gln	Pro	Leu	Ser	Gly	Ser	Trp	Thr	Ser	Pro	Gln	Leu	Pro
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Ser	Arg	Thr	Gln	Ser	Val	Arg	Ser	Pro	Thr	Pro	Tyr	Lys	Lys	Gln	Leu
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Asn	Glu	Glu	Leu	Gln	Arg	Arg	Ser	Ser	Ala	Leu	Asp	Thr	Arg	Arg	Lys
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Ala	Glu	Pro	Thr	Phe	Gly	Gly	His	Asp	Pro	Arg	Thr	Ala	Val	Gln	Leu
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Lys	Ser	Gln	Asp	Ser	Asp	Leu	Lys	Gln	Tyr	Trp	Met	Pro	Asp	Ser	Gln
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Cys	Lys	Glu	Cys	Tyr	Asp	Cys	Ser	Glu	Lys	Phe	Thr	Thr	Phe	Arg	Arg
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Arg	His	His	Cys	Arg	Leu	Cys	Gly	Gln	Ile	Phe	Cys	Ser	Arg	Cys	Cys
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Val Pro Ser Tyr Glu Thr Ser Val Ser Pro Gln Ala Asn Arg Thr Tyr		
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Val Gln Leu Lys Asp Leu Trp Lys Lys Ile Cys His His Ser Ser Gly		
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Met Glu Phe Gln Asp His Arg Tyr Trp Leu Arg Thr His Pro Asn Cys		
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Ile Val Gly Lys Glu Leu Val Asn Trp Leu Ile Arg Asn Gly His Ile		
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Ser Trp Phe Lys Asp Ile Lys Phe Asp Asp Ser Asp Thr Glu Gln Ile		
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Lys	Phe	Tyr	Met	Gln	Ile	Phe	Gln	Leu	Pro	Asn	Glu	Gln	Thr	Lys	Thr	
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Gln	Tyr	Gly	Gly	Gly	Ser	Ile	Pro	Trp	Asp	Pro	Asp	Ile	Pro	Pro	Glu	
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Glu	Lys	Gly	Glu	Gln	Glu	Asn	Lys	Asn	Leu	Pro	Gln	Ala	Val	Ala	Ser	

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Glu	Arg	Gly	Leu	Ile	Leu	Ser	Asp	Ala	Val	Trp	Ser	Thr	Lys	Val	Asp				
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Cys	Leu	Asn	Pro	Ile	Asn	His	Gln	Arg	Leu	Cys	Val	Leu	Phe	Ser	Ser				
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Gln Val Thr Pro Val Val Ala Leu Ser Asn Glu Ser Trp Ser Met Ser			
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Gln Tyr Phe Ser Tyr Asn Gln Met Val Ala Ser Phe Ser Tyr Ser Pro			
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Ile Arg Leu Leu Glu Val Cys Val Pro Leu Pro Lys Ile Phe Ile Lys			
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Arg Gln Ala Pro Leu Lys Val Ser Leu Leu Gln Asp Leu Lys Asp Phe			
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Phe Gln Lys Val Ser Gln Val Tyr Val Ala Ile Asp Glu Arg Leu Ala			
1365	1370		1375
Ser Leu Lys Thr Asp Thr Phe Ser Lys Thr Arg Glu Glu Lys Met Glu			
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